

# Discover An Acre

## *A lesson from the New Jersey Agricultural Society Learning Through Gardening Program*

One acre = 43,560 square feet

Objectives: The student will be able to:

- Calculate area by using one-foot paper squares.
- Calculate the area of the classroom by using one-foot paper squares.
- Calculate area by multiplying length x width.
- Calculate how many classrooms would fit into one acre.

Grades: 3-5

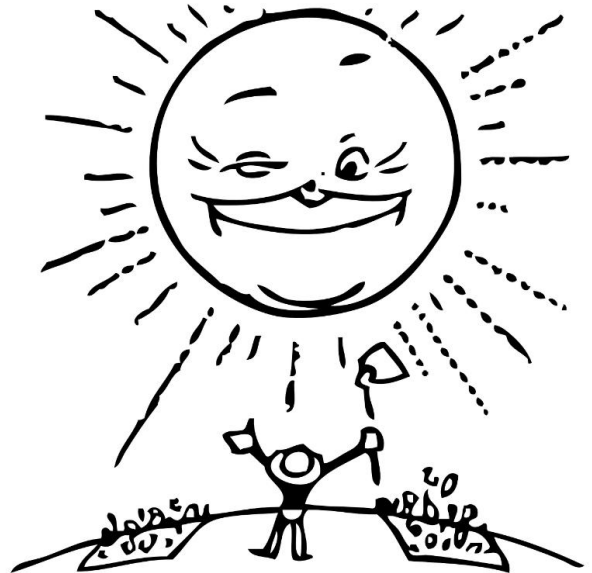
Procedure: Explain that the size of farms is measured by using a measurement of area called an acre. (If possible, tell students the acreage of a few local farms.) Area is the number of square feet in a space and can be calculated by measuring length x width. An acre is 43,650 square feet. Today we are going to see how big an acre is by figuring out how many of our classrooms would fit inside an acre.

Give each student three one-foot squares of paper and place students in groups of four or five. Allow students time to experiment with the one-foot squares by creating shapes and figuring out their area.

Next ask students to figure out the area of the classroom by lining up the one-foot squares across the length of the classroom and the width of the classroom. Multiply to find the square footage.

Once the area of the classroom is determined, ask the students in small groups to come up with a way to figure out how many classrooms would fit inside an acre. Allow them to use calculators if their multiplication skills are not advanced enough.

Bring the whole class together and discuss the strategies for finding out how many classrooms equal an acre and determine the answer.



### Evaluation:

The student can calculate area by using one-foot paper squares and by using the formula length  $\times$  width.

The student can work with a small group to determine how many classrooms can fit into an acre.

### Extension:

Ask students to use the one-foot squares to explore the difference between perimeter and area. Have the students create a shape with the squares and then calculate the perimeter and the area. Next students use the same number of squares to create different shapes and calculate the perimeter and area. Does the area remain the same? Does the perimeter remain the same? Why?